

Title (en)
On-demand overlay routing for computer-based communication networks

Title (de)
On-Demand-Überlappungsrouting für computerbasierte Kommunikationsnetzwerke

Title (fr)
Routage superposé sur demande pour des réseaux de communication informatiques

Publication
EP 1898571 A3 20100901 (EN)

Application
EP 07024630 A 20000616

Priority
• EP 00941508 A 20000616
• US 33648799 A 19990618

Abstract (en)
[origin: EP1898571A2] Methods and apparatus are disclosed for dynamically discovering and utilizing an optimized network path through overlay routing for the transmission of data. A determination whether to use a default network path or to instead use an alternate data forwarding path through one or more overlay nodes is based on real-time measurement of costs associated with the alternative paths, in response to a user request for transmission of message data to a destination on the network. Cost metrics include delay, throughput, jitter, loss, and security. The system chooses the best path among the default forwarding path and the multiple alternate forwarding paths, and implements appropriate control actions to force data transmission along the chosen path. No modification of established network communication protocols is required.

IPC 8 full level
H04L 12/56 (2006.01); **F25B 41/00** (2006.01); **F25B 41/06** (2006.01); **H04L 12/46** (2006.01); **H04L 45/02** (2022.01); **H04L 45/121** (2022.01); **H04L 45/24** (2022.01); **H04L 45/28** (2022.01)

CPC (source: EP US)
H04L 12/4633 (2013.01 - EP US); **H04L 45/00** (2013.01 - US); **H04L 45/02** (2013.01 - EP US); **H04L 45/121** (2013.01 - EP US); **H04L 45/124** (2013.01 - EP US); **H04L 45/22** (2013.01 - EP US); **H04L 45/28** (2013.01 - EP US); **H04L 45/302** (2013.01 - EP US); **H04L 45/306** (2013.01 - EP US); **H04L 45/64** (2013.01 - EP US)

Citation (search report)
• [X] US 5452294 A 19950919 - NATARAJAN KADATHUR S [US]
• [A] WO 9857465 A1 19981217 - VPNET TECHNOLOGIES INC [US]
• [A] EP 0637153 A1 19950201 - IBM [US]
• [A] EP 0660569 A1 19950628 - IBM [US]
• [X] GUERIN R A ET AL: "QOS ROUTING MECHANISMS AND OSPF EXTENSIONS", GLOBAL TELECOMMUNICATIONS CONFERENCE (GLOBECOM),US,NEW YORK, IEEE, 3 November 1997 (1997-11-03), pages 1903 - 1908, XP000737848, ISBN: 0-7803-4199-6

Designated contracting state (EPC)
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)
WO 0079730 A2 20001228; WO 0079730 A3 20010712; AT E383013 T1 20080115; AU 5620900 A 20010109; CA 2374621 A1 20001228; CA 2374621 C 20080506; DE 60037660 D1 20080214; DE 60037660 T2 20081106; EP 1188280 A2 20020320; EP 1188280 B1 20080102; EP 1898571 A2 20080312; EP 1898571 A3 20100901; EP 1898571 B1 20170208; JP 2003502941 A 20030121; JP 4677155 B2 20110427; US 2001037409 A1 20011101; US 2002018449 A1 20020214; US 2004022194 A1 20040205; US 2011228678 A1 20110922; US 6275470 B1 20010814; US 6473405 B2 20021029; US 6778502 B2 20040817; US 7953888 B2 20110531; US 8599697 B2 20131203

DOCDB simple family (application)
US 0016732 W 20000616; AT 00941508 T 20000616; AU 5620900 A 20000616; CA 2374621 A 20000616; DE 60037660 T 20000616; EP 00941508 A 20000616; EP 07024630 A 20000616; JP 2001504633 A 20000616; US 201113118569 A 20110530; US 33648799 A 19990618; US 63055903 A 20030730; US 88896601 A 20010625; US 91662801 A 20010727